

Reference/Docket No: 0861  
USSN: 09/683,861

## REMARKS

### STATUS OF THE CLAIMS

Claims 1-58, 74-75, and 77 were pending herein. Claim 80 has been amended. Following entry of the above amendments, claims 1-58, 74-75, and 77 will be pending and at issue.

### CLAIM AMENDMENTS

The Examiner indicated that the application is in condition for allowance, except for the formal matters indicated in the Ex Parte Quayle action. The Examiner pointed out minor corrections to be made to claim 80 regarding proper antecedence. Applicant has addressed this in the above claim amendments as suggested by the Examiner.

With regard to claim 81, the Examiner stated that "the embodiment in which only one bead commensurate in size with the crater is present does not include detecting the number of particles." Office Action, p. 2. Applicants respectfully disagree. Claim 81 recites "wherein the particles are each substantially commensurate in shape and dimension as the crater." Applicants submit that the Specification clearly explains that the sample particles can be commensurate in size with the crater, including when a sample particle is a capping particle. *See* Specification as originally filed, paragraph [0056] ("In one embodiment, the size of a crater is designed to be **substantially commensurate with the shape and size of a sample particle, e.g., a capping particle or bead**" (emphasis added)). The Specification also explains that the terms "particle" and "bead" are used interchangeably. *See* Specification, paragraph [0082] ("As used herein particle, bead, closure element and lid should generally be held interchangeably herein."). Further, this is even illustrated in the Figures as originally filed. *See* paragraphs [0028], [0056] ("Figure 8 illustrates such a structure 100 **including a crater or pocket substantially commensurate with the shape and size of a portion of a sample particle**" (emphasis added)). Applicant further submits that the Specification discloses localizing of lids to active elements or activated locations, and detecting these lids/particles. *See* Specification, paragraph [0099] ("The **localization of lid-particles**, for example, inherently uses **active elements** to fabricate the invention, *e.g.*, by **localizing lids to locations lacking appropriate lids**, by **sensing that the lid has been appropriately localized** and by returning data indicating the success, failure, or other

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aspects or conditions of one or more locations operated to localize lids" (emphasis added)). Applicant further notes that detecting that exactly one particle is present is detecting that the number of particles is equal to one particle. Thus, Applicants respectfully submit that the embodiments with a bead commensurate in size with the crater **do** include detecting the number of particles. Applicants request withdrawal of the Examiner's request to cancel or amend claim 81.

With regard to claim 83, the Examiner stated that "the lid particles are in addition to the smaller particles being counted." Office Action, p. 2. Applicants respectfully disagree. Claim 83 recites "wherein the sample particles comprise a plurality of lid particles, each of sufficient size to substantially close an opening of the crater." Applicants refer again to the above-cited support in the Specification. The lid particles are not necessarily in addition to the particles being counted. The lid particles can be sample particles, and so the sample particles can comprise "a plurality of lid particles, each of sufficient size to substantially close an opening of the crater." Applicants submit that the lid particle may be the only particle. This interpretation is supported throughout the Specification as filed, including at paragraphs [0028], [0056], [0082], and [0099]. Applicants request withdrawal of the Examiner's request to amend claim 81.

With regard to claims 88 and 89, the Examiner stated that "the additional sensors are not used for detecting the number of particles, but rather for detecting properties of the particles." Office Action, p. 3. Claim 88 states "wherein the step of detecting further comprises detecting with a sensing element that is selected from the group consisting of: a pH sensor, an optical sensor, a radiation sensor, a magnetic induction sensor, a temperature sensor and a pressure sensor." Without conceding to the Examiner's interpretation of claim 88, Applicant has amended claim 88. Applicant notes however that the detecting step of claim 59 can be performed using the sensing element referred to in claim 88. Similarly, these can be separate elements integrated into the same hardware. Support is found throughout the Specification as filed, including at paragraphs [0063], [0082], and [0087].

Claim 89 recites "wherein the step of detecting further comprises detecting with a sensing element that has a position relative to the specific locations selected from a group of positions consisting of: under the specific locations, adjacent to the specific locations, surrounding the specific locations, above the specific locations, between the specific locations, operably connected to the specific location by a signal-routing conduit, and combinations thereof."

Without conceding to the Examiner's interpretation of claim 89, Applicant has amended claim